

REMARKS**INTRODUCTION:**

In accordance with the foregoing, claims 6, 10, 16, 20 and 25 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1, 3-4, 6-13, 16-17, 19-21, and 23-28 are pending and under consideration. Reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. §112:

In the Office Action, at pages 2-3, numbered paragraph 4, claims 6, 10, 16 and 20 were rejected under 35 U.S.C. §112, first paragraph, for the reasons set forth therein. This rejection is traversed and reconsideration is requested.

It should be noted that paragraphs [0005]-[0006] of the specification recite:

[0005] Since conventional sound output systems output sound on the basis of a relationship between a volume level and a sound output that is determined in advance, conventional sound output systems cannot satisfy the desires for precise volume control of users such as music experts who are sensitive to minor variations in sound output. (emphasis added)

SUMMARY OF THE INVENTION

[0006] The present invention provides a volume control apparatus which enables the volume of sound output from a sound output system to be adjusted in units of an increase/decrease interval set by a user, and a method thereof. (emphasis added)

Hence, it is submitted to be clear that the present invention permits the user to select an interval and adjust the sound output for the interval. For example, FIG. 4 clearly indicates that the user may request setting of a sound increase/decrease interval with respect to a specific interval (numeral 401). The operations in FIG. 4 are described in paragraphs [0039]-[0043] of the specification.

For clarity, claim 6 has been amended to change "applying the sound increase/decrease interval information to part of an interval of sound that is output from the sound output system" to recite --- applying the sound increase/decrease interval information to a selected interval of sound that is output from the sound output system---. Claims 16 and 20 have been amended in similar fashion.

In claim 10, there appears to be some confusion as to why the number of volume levels selected by the user is increased by one. Hence, claim 10 has been amended to change

"comparing, if a user selects a volume level, a number of volume levels selected by the user with a maximum number of volume levels setable by the user in the sound output system" to recite --comparing, if a user selects another volume level, a number of volume levels selected by the user with a maximum number of volume levels setable by the user in the sound output system---. Thus, it is now clear that selection of "another" volume level increases the number of selected volume levels by one.

Hence, it is respectfully submitted that claims 6, 10, 16, and 20 now comply with the enablement requirement and contain subject matter which was described in the specification in such a way as to enable one skilled in the art to which it pertains to make or use the invention and are allowable under 35 U.S.C. §112, first paragraph.

REJECTION UNDER 35 U.S.C. §102:

In the Office Action, at pages 3-4, numbered paragraph 6, claims 25-27 were rejected under 35 U.S.C. §102(b) as being anticipated by Jordan (USPN 5,150,404; hereafter, Jordan). This rejection is traversed and reconsideration is requested.

It is respectfully submitted that, as noted above, the present claimed invention enables the volume of sound output from a sound output system to be adjusted in units of an increase/decrease interval set by a user, which is not taught or suggested by Jordan.

Independent claim 25 has been amended to show this advantage more clearly so that amended independent claim 25 recites, in part: "setting, by a user, a maximum number of volume levels and increase/decrease intervals to enable a volume of sound output from the sound output system to be adjusted in units of an increase/decrease interval set by the user; and storing each volume level and increase/decrease interval selected by the user until the maximum number of volume levels is obtained."

Hence, amended independent claim 25 enables the user to set increase/decrease intervals of desired sizes, in contrast to Jordan, which does not provide such a capability.

Thus, amended independent claim 25 is not anticipated under 35 U.S.C. §102(b) by Jordan (USPN 5,150,404). Since claims 26-27 depend from amended independent claim 25, claims 26-27 are not anticipated under 35 U.S.C. §102(b) by Jordan (USPN 5,150,404) for at least the reasons amended independent claim 25 of the present invention is not anticipated under 35 U.S.C. §102(b) by Jordan (USPN 5,150,404).

REJECTION UNDER 35 U.S.C. §103:

A. In the Office Action, at pages 4-5, numbered paragraph 8, claims 10-12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bates et al. (USPN 6,760,635; hereafter,

Bates) in view of Hayama et al. (USPN 4,611,344; hereafter, Hayama) in further view of Jordan et al. (USPN 5,150,404; hereafter, Jordan). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

As noted above, independent claim 10 has been amended to change “comparing, if a user selects a volume level, a number of volume levels selected by the user with a maximum number of volume levels setable by the user in the sound output system” to recite ---comparing, if a user selects another volume level, a number of volume levels selected by the user with a maximum number of volume levels setable by the user in the sound output system---. Thus, it is now clear that selection of “another” volume level increases the number of selected volume levels by one.

The Examiner admits that Bates fails to disclose increasing the volume level by the user by one. Also, as noted by the Examiner, Bates, as modified by Hayama, fails to disclose performing this method and comparing a number of volume levels. Jordan teaches only using the volume levels provided by the manufacturing process, not setting volume levels as desired by the user. Thus, even if combined, Bates, Hayama and Jordan do not teach amended independent claim 10 of the present invention.

Hence, it is respectfully submitted that amended independent claim 10 is patentable under 35 U.S.C. §103(a) over Bates et al. (USPN 6,760,635) in view of Hayama et al. (USPN 4,611,344) in further view of Jordan et al. (USPN 5,150,404). Since claims 11-12 depend from amended claim 10, claims 11-12 are patentable under 35 U.S.C. §103(a) over Bates et al. (USPN 6,760,635) in view of Hayama et al. (USPN 4,611,344) in further view of Jordan et al. (USPN 5,150,404) for at least the reasons amended independent claim 10 is patentable under 35 U.S.C. §103(a) over Bates et al. (USPN 6,760,635) in view of Hayama et al. (USPN 4,611,344) in further view of Jordan et al. (USPN 5,150,404).

B. In the Office Action, at pages 5-6, numbered paragraph 9, claim 28 was rejected under 35 U.S.C. §103(a) as being unpatentable over Jordan et al. (USPN 5,150,404; hereafter, Jordan). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

As noted above, it is respectfully submitted that amended independent claim 25 is not taught or suggested by Jordan. Hence, it is respectfully submitted that amended independent claim 25 of the present invention is patentable under 35 U.S.C. §103(a) over Jordan et al. (USPN 5,150,404). Since claim 28 depends, indirectly, from amended independent claim 25 of the present invention, claim 28 is patentable under 35 U.S.C. §103(a) over Jordan et al. (USPN

5,150,404) for at least the reasons amended independent claim 25 is patentable under 35 U.S.C. §103(a) over Jordan et al. (USPN 5,150,404).

ALLOWABLE SUBJECT MATTER:

In the Office Action, at pages 6-7, claims 1, 4, 7, 13, 17 and 21 were allowed. Claims 3, 8, 9, 19, 23, and 24 were allowed due to dependency on claims 1, 4, 7, 10, 17, 21 and 25.

Applicants thank the Examiner for her careful review and allowance of claims 1, 3, 4, 7, 8, 9, 13, 17, 29, 21, 23, and 24.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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